

ABSTRACT OF THE DISCLOSURE

Disclosed is a self-healing bit rate transducer in an optical transmission system and includes a demultiplexer for demultiplexing optical signals into different wavelength channels; a plurality of bit rate receivers coupled to the output of the demultiplexing means for converting the demultiplexed optical signals into the corresponding electrical signals and for generating a bit-rate error signal, the bit rate receiver having a sensing means for generating a temperature reference signal; a detecting section coupled to the output of said demultiplexer for generating a signal indicative of the bit rate of the optical signals outputted therefrom; and, a controller for comparing the bit rate detected by the detecting section with a predetermined data to generate a control signal that is used to adjust the bit rate of the respective bit rate receiver.